

**INITIAL STATEMENT OF REASONS FOR
PROPOSED BUILDING STANDARDS OF THE
CALIFORNIA BUILDING STANDARDS COMMISSION (CBSC)**

**REGARDING THE 2016 CALIFORNIA PLUMBING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5**

BSC 02-16

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS:

(Government Code Section 11346.2(b)(1))

For Items 1-4, the following applies:

The California Building Standards Commission (CBSC) is proposing to amend the 2016 *California Plumbing Code* (CPC) to align with the California Energy Commission's Title 20 Appliance Efficiency regulations and other amendments proposed in the California Green Building Standards Code (*CALGreen*). These provisions will aid in the reduction of potable water use and add clarity for the code user.

For Items 5-9, the following applies:

The California Building Standards Commission (CBSC) is proposing to add appropriate sections to the code that require the installation of recycled water supply systems for newly constructed nonresidential buildings. Pursuant to AB 2282 (Gatto, Chapter 606, Statutes of 2014), which added Section 18940.6 to the Health and Safety Code, the legislature mandated that CBSC, along with the Department of Housing and Community Development (HCD) and other interested parties, research, develop, and propose for adoption mandatory recycled water infrastructure standards during the 2016 Intervening Code Adoption Cycle. This would result in the installation of recycled water supply systems in new nonresidential construction. CBSC conducted research during several precycle workshops, in consultation with HCD, DWR, State Water Resources Control Board (SWRCB), public water systems, recycled water producers/purveyors, product manufacturers, local building officials, apartment and other rental property owners, California-licensed contractors, the building industry, water research associations, and other interested parties, and developed standards for recycled water supply systems for both indoor and outdoor use (water closets, urinals, trap primers for floor drains and floor sinks, aboveground and subsurface irrigation, industrial or commercial cooling or air conditioning and other allowed uses). The initial submittal of these regulations was heard by the GREEN-PEME Ad Hoc Code Advisory Committee (CAC) on February 13-14, 2017. During this meeting, BSC received valuable feedback from industry stakeholders and other interested parties addressing concerns with the indoor elements of the mandatory recycled water building standards. As a result, the CAC recommended that CBSC further study the majority of the recycled water building standards contained within Items 5-9 of this proposal. Specifically, the CAC recommended that CBSC withdraw the indoor element of the AB 2282 mandate, focusing solely on mandatory standards for outdoor recycled water use for landscape irrigation. Based on this recommendation, CBSC is withdrawing language that was originally proposed to be co-adopted with DWR into Section 1503 (DWR is proceeding with its migration of existing recycled water standards from Chapter 16A into Section 1503). Additionally, the CAC recommended that CBSC coordinate with HCD and DWR on aligning amendments in Sections 1501, 1502, and 1504. CBSC accepted these CAC recommendations and has modified its express terms accordingly.

The scope and application of these proposed standards are limited to within a local jurisdiction that has feasible and cost-efficient access to a water recycling facility, or that has been identified within a planned service area with a specific implementation timeline for recycled water. These proposed amendments reflect the statutory mandate and the feedback received during the research phase of the precycle workshops, as well as during the CAC meeting that took place on February 13-14, 2017. As such, CBSC

proposes to adopt and amend Chapters 1, 2, 6, and 15. Pursuant to AB 2282, these proposed building standards must be consistent with the recycled water use criteria specified in Chapter 3 (commencing with Section 60301.100) of Division 4 of Title 22 of the California Code of Regulations. These provisions will aid in the reduction of potable water use. CBSC's proposed amendments are in alignment with similar proposals made by HCD and the Department of Water Resources, and are consistent with the California Water Action Plan 2016 Update.

ITEM 1. CBSC proposes to amend Chapter 2 as follows:

Agency Statement:

CBSC proposes to adopt a new definition for "hybrid urinals" in Chapter 2 Definitions of the 2016 *California Plumbing Code*.

Rationale:

CBSC proposes to adopt the above referenced definition. The term "hybrid urinal" is used in CBSC's new proposal in Section 412.1.3.1 and Tables 610.3 and 702.1. The proposed definition is consistent with the definition in *CALGreen*.

CAC Comments: The Green/PEME Code Advisory Committee recommended Further Study to the proposed definition as a result of comments received to the new proposed Section 412.1.3.1 for hybrid urinals.

CBSC Response: The CBSC agreed with the CAC and has renamed "hybrid urinals" to "urinal, hybrid" to align with the naming convention in Tables 610.3 and 702.1. Additionally, the term hybrid urinal is a proprietary name so renaming it to "urinal, hybrid" was needed to eliminate potential confusion with the proposed term.

Benefit:

The proposed amendment provides benefit to the code user by providing clarity and consistency between the CPC and this similar code language for hybrid urinals found in *CALGreen*. Additionally, constancy between the residential and non-residential codes will be maintained as HCD is proposing similar amendments in the CPC for residential occupancies.

ITEM 2. CBSC proposes to amend Chapter 4, Section 408.0 Showers, Sections 411.0 Water closets & Section 412.0 Urinals

408.2.1 Single Showerhead.

408.2.2 Multiple Showerheads Serving One Shower.

411.2.3.1 Flushometer Valve Activated Water Closets.

412.1.3.1 Urinal, Hybrid

Specific Purpose:

CBSC proposes to amend Sections 408.2.1 and 408.2.2 for showerhead flow rates and clarify the acronyms for flush volume for water closets. Additionally, a new code section is being added for hybrid urinals under the term name "urinal, hybrid".

Rationale:

CBSC proposes to amend the existing flow rates for both single and multiple showerheads by changing the flow rates from 2.0 gallons per flush to 1.8 gallons per flush. This amendment is needed because Title 20 Appliance Efficiency regulations enacted a more restrictive standard for showerheads and set the flow rates at 1.8 gallons per minutes for showerheads sold or installed on or after July 1, 2018. With this in mind, CBSC needs to align the mandatory requirements in CPC with the Appliance Efficiency Regulations in Title 20 during this intervening code cycle which also takes effect on July 1, 2018, to avoid a conflict between Titles 20 and 24 of the California Code of Regulations.

CBSC proposes to clarify the acronyms for Flushometer Valve Activated Water Closets by repealing the acronyms “pf” because these acronyms are already spelled out in the code section. This amendment is editorial in nature and no substantive and is consistent with similar code language in subsections. Additionally, this amendment is consistent with similar amendments being proposed by HCD.

CBSC proposes to incorporate language clarifying that hybrid urinals or urinal, hybrids, where approved for installation, shall be considered nonwater urinals. Hybrid urinals have received a full Uniform Plumbing Code (UPC) listing showing compliance with all standards and minimum provisions of the Uniform Plumbing Code. These hybrid urinals operate as nonwater urinals, but are connected to a water line. The hybrid urinals are able to use a water hook-up for the purpose of flushing, but do not require water to do so. Like nonwater urinals, they rely on gravity to bring fluids down into the filter system; but use the water supply line at regular intervals to rinse the inside of the urinal bowl. This proposed amendment for hybrid urinals is already codified in the 2016 CALGreen code and will provide constancy by adding it to the CPC. The amendment is editorial in nature and non-substantive.

CAC Comments: The Green/PEME Code Advisory Committee recommended Further Study to the proposed Section 412.1.3.1.

CBSC Response: The CBSC agreed with the CAC recommendations and has renamed “hybrid urinal” to “urinal, hybrid” to align with the naming convention in Tables 610.3 and 702.1 and the proposed definition in Chapter 2. Additionally, the reference to ASME A112.19.19-2016 has been deleted since it is not included in the 2016 California Plumbing Code nor in the 2016 CALGreen Code.

Benefit:

This proposed code change aligns with existing Appliance Efficiency regulations adopted by the California Energy Commission, thereby avoiding a conflict between Titles 20 and 24 of the California Code of Regulations. These changes will also help the regulated community to understand the new mandatory requirements approved by the commission in response to ongoing drought conditions, thereby protecting the health and safety of California’s residents. Additionally, the proposed amendments are intended to provide clarity and consistency between the CPC and the *CALGreen* code for similar proposed code amendments.

ITEM 3. CBSC proposes to amend Chapter 6 as follows:

TABLE 610.3 WATER SUPPLY FIXTURE UNITS (WSFU) AND MINIMUM FIXTURE BRANCH PIPES SIZES

Specific Purpose:

CBSC proposes to amend the above referenced Table 610.3 to add hybrid urinals to the list.

Rationale:

CBSC proposes amend Table 610.3 to add in the branch pipe sizing and water supply fixture unit (WSFU) and minimum fixture branch pipe sizes values for the hybrid urinals as provided in Section 412.1.3.1.

The hybrid urinal has been added to Table 610.3 to account for the intermittent 1 gallon per cycle drain cleansing action by assessing 1 WSFU rating to the fixture table. The drain cleansing action emits a 1 gallon cleansing action in approximately 20 seconds or approximately 3 gallons per minute when cleansing cycle is activated.

Benefit:

This proposed code change provides consistency between the proposed changes to sections 412.1.3.1 and respective Table 610.3. The addition of the table accounts for drain cleansing action and sets the standard for the WSFU which benefits the code user in implementing regulations for hybrid urinals when specified for use in nonresidential applications.

ITEM 4. CBSC proposes to amend Chapter 7 as follows:

TABLE 702.1 DRAINAGE FIXTURE UNIT VALUES (DFU)

Specific Purpose:

CBSC proposes to amend the above referenced Table 702.1 to add hybrid urinals to the table.

Rationale:

CBSC proposes to add in trap and trap arm sizing and drainage fixture unit (DFU) values for hybrid urinals as provided in Section 412.1.3.1. The hybrid urinal has been added to Table 702.1 to account for the intermittent 1 gallon per cycle drain cleansing action by assessing 1 DFU rating to the fixture table. The drain cleansing action emits a 1 gallon cleansing action in approximately 20 seconds or approximately 3 gallons per minute when cleansing cycle is activated.

Benefit:

This proposed code change provides consistency between the proposed changes to sections 412.1.3.1 and the respective Table 702.1. The addition of the table accounts for drain cleansing action and sets the standard for the DFU which benefits the code user in implementing regulations for hybrid urinals when specified for us in nonresidential applications.

ITEM 5. CHAPTER 1, ADMINISTRATION, DIVISION I, CALIFORNIA ADMINISTRATION

Agency Statement:

CBSC proposes to amend **Section 1.2.1 BSC** to include subsections **1.2.1.1 State building** and **1.2.1.2 Enforcement**, which were incorrectly adopted as subsections of Section 1.2.2 and are being relocated for clarity.

CBSC proposes to amend **Section 1.2.3 BSC-CG** to clarify that the banner, when used to indicate CBSC's amendments regarding gray water systems, applies to all nonresidential occupancies for which no other state agency has authority, pursuant to Health and Safety Code Section 18941.8. CBSC is also renumbering **Section 1.2.2 Alternate Materials, Design, and Methods of Construction and Equipment** to Section 1.2.3 and its subsections, which were codified and published incorrectly in the 2016 edition of the code.

Rationale:

CBSC's amendments to this section clarify existing authority for nonresidential gray water systems and also implements elements of AB 2282 (specifically, CBSC's amendments to Section 1501 and 1502). The renumbering of specified sections is an editorial amendment for clarity within the code.

ITEM 6 – CHAPTER 2, DEFINITIONS

Agency Statement:

CBSC proposes to amend existing definitions, and adopt new definitions, in Chapter 2 of the 2016 California Plumbing Code. CBSC also proposes to replace the **BSC** banner with **BSC-CG** to clarify applicability to graywater standards, consistent with the amendments to Item 1 above.

Section 205.0

Complex System [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC's authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Construction Site [BSC-CG].

Rationale: In response to the CAC recommendation for further study, BSC coordinated with HCD and is co-adopting the scope of the AB 2282 mandate in Section 1501.1.1.1, which applies to both residential and nonresidential occupancies (outdoor only). Because this language contains a reference to the term “construction site,” BSC is also co-adopting this definition with HCD.

Section 206.0 Disinfected Tertiary Recycled Water.

Rationale: This term is used in the existing CPC definition for “Reclaimed (Recycled) Water”, but is not defined. CBSC is proposing this new definition to clarify that disinfected tertiary recycled water meets applicable recycled water use criteria pursuant to Title 22.

Section 206.0 Disposal Field [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 207.0 Enforcing Agency [BSC, BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency. It should be noted that this amendment applies to both the BSC and BSC-CG banners.

Section 209.0 Graywater [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 209.0 Gray Water System [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 211.0 Irrigation Field [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 215.0 Mulch Basin [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 217.0 On-Site Treated Nonpotable Water [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 220.0 Rainwater [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 220.0 Rainwater Catchment System [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 220.0 Receiving Landscape [BSC-CG].

Rationale: This is an editorial amendment to show the BSC-CG banner, which reflects BSC’s authority for graywater building standards for all nonresidential occupancies not regulated by another state agency.

Section 220.0 Reclaimed (Recycled) Water. [BSC-CG]

Rationale: In 2014 the California Department of Health (CDPH) – Division of Drinking Water was transferred under the State Water Resources Control Board (SWRCB), including all authority for the

recycled water use criteria regulations contained within Title 22 of the California Code of Regulations. CBSC is amending this existing definition to align with this transfer of authority from CDPH to SWRCB.

Section 220 Recycled Water Supply System.

Rationale: Recycled Water Supply System is not defined in the CPC. This new definition aligns with the model code definition for “Water Supply System” (for potable water). This new term is used in CBSC’s amendments to the CPC included herein. In response to the CAC recommendation for further study, CBSC coordinated with HCD and DWR to revise this new definition, which now references “reclaimed (recycled) water” to align with the existing CPC definition. Additionally, the phrase “within the property lines of the premises” has been changed to “within the premises” to address stakeholder concerns and align more closely with the UPC model code definition for potable water supply systems. CBSC is also proposing this new definition in CALGreen.

ITEM 7 – CHAPTER 6, WATER SUPPLY AND DISTRIBUTION

Agency Statement:

CBSC proposes to adopt and amend existing exceptions, and add a new exception, in Chapter 6 of the 2016 California Plumbing Code, in alignment with HCD and DWR, for the purpose of implementing AB 2282 as noted in the ISOR general statement. CBSC also proposes to adopt Section 601.3.3 and correct a minor error in the existing CPC.

Rationale:

Section 601.2 Hot and Cold Water Required.

Exceptions

- CBSC is adopting Exception 1 to align with HCD and DWR.
- Similar to HCD’s existing Exception 3, which points to Chapter 16A for the allowance of recycled water, CBSC is adopting a new Exception 4 that allows the use of alternate water sources as an exception to potable water, as specified in Chapter 15 of the CPC. In response to the CAC’s further study recommendation, CBSC, HCD, and DWR revised this definition, changing “municipal” to “reclaimed (recycled)” to be consistent with the CPC term for recycled water. Additionally, “within the property lines of the premises” has been changed to “within the premises” to maintain consistency with the CPC definition of “Water Supply System” (upon which this definition is based).
- CBSC is co-adopting DWR’s existing Exception 4, which allows public agencies to require recycled water for toilet and urinal flushing, and renumbering it Exception 5.

601.3.3 Alternate Water Sources.

Rationale: Based on the CAC’s further study recommendation (and in coordination with HCD and DWR), BSC is removing its amendments to Section 601.3.3. DWR’s amendments to this section reference their proposed amendments in Section 1503, specific to indoor recycled water use.

ITEM 8 – CHAPTER 15, ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS (Sections 1501 and 1502)

Agency Statement:

CBSC is proposing amendments to Section 1501 and 1502 relative to alternate water sources.

Specific Purpose:

The purpose of these amendments is to implement the requirements of AB 2282 (for the development of mandatory recycled water infrastructure building standards) in alignment with HCD and DWR.

Intent.

Rationale: This intent language is adopted by both CBSC and HCD. For purposes of implementing AB 2282, CBSC is proposing a clarifying amendment to this nonregulatory language. Based on the CAC's further study recommendation, CBSC is aligning its amendments to the intent language with those of HCD and DWR.

Section 1501.1 Applicability

Rationale: CBSC is updating the banner to "BSC-CG" to clarify CBSC's authority for graywater building standards. There is no intended change in regulatory effect.

1501.1.1.1 Outdoor Recycled Water Supply Systems

Rationale: Based on the CAC further study recommendation, CBSC coordinated with HCD on this language to implement the scope of application for the AB 2282 mandate. In response to concerns raised by the plumbing industry and other stakeholders, as well as the CAC recommendation for further study, CBSC has removed the indoor element of the AB 2282 mandate and is focusing solely on mandatory standards for outdoor recycled water use for landscape irrigation (similar to HCD). As such, CBSC is co-adopting this language with HCD, including language specific to when recycled water is determined to be "readily available" (this was a specific recommendation from both stakeholders and the CAC). CBSC is also co-adopting the subsequent exceptions and note within this subsection, which reflect the legislative intent of AB 2282 to give the local jurisdictions flexibility in implementing the mandate.

1501.1.1.2 Technical Requirements for Outdoor Recycled Water Supply Systems.

Rationale: Based on the CAC further study recommendation, CBSC is co-adopting this language with HCD to be applicable to both residential and non-residential construction. This language directs the code user to the applicable technical requirements for installing outdoor recycled water supply systems for landscape irrigation within Titles 17 and 22 (Recycled Water Use Criteria developed by SWRCB) as well as Title 23 (Model Water Efficient Landscape Ordinance developed by DWR).

1501.2 System Design

Rationale: Based on the CAC further study recommendation, CBSC is repealing the model code language in this section (which was incorrectly italicized in the January 1, 2017 errata) and co-adopting amendments proposed by HCD specific to the system design of alternate water source systems. Additionally, CBSC is co-adopting language with HCD that references the Title 23 Model Water Efficient Landscape Ordinance for irrigation design plans.

1501.3 Permit.

Rationale: CBSC proposes to amend the above referenced section as follows (consistent with HCD and DWR):

- CBSC proposes to incorporate the phrase "from the Authority Having Jurisdiction" from the model code, inadvertently omitted during the 2012 Triennial Code Adoption Cycle and consistent with Chapter 16A, Section 1615A.0.
- CBSC also proposes to relocate an existing California amendment pertaining to indoor gray water systems to Section 1504.2, addressing on-site treated nonpotable graywater systems. There is no intended change in regulatory effect.
- CBSC also proposes to clarify no changes shall be made to either water system without approval from the Authority Having Jurisdiction.
- CBSC proposes to change "a" to "its" for clarity, and to correct the spelling of "premise" to "premises."
- Based on comments received during precycle workshops, CBSC is co-adopting HCD's existing exception for clothes washing systems.

1501.5 Maintenance and Inspection

Rationale: CBSC proposes to adopt and amend the above referenced section. This California amendment helps direct the code user to the Table 1501.5 if there are no other options available. CBSC is also proposing to repeal "Enforcing Agency" and add "Authority Having Jurisdiction" for clarity and consistency. CBSC is also removing an exception referencing the recycled water requirements in Section 1503 as this section is under the authority of DWR.

1501.6 Operation and Maintenance Manual

Rationale: CBSC proposes to amend Section 1501.6 to add requirements for recycled water systems and references to applicable Chapter 15 sections: 1503.2 and 1503.15, in coordination with HCD and DWR language.

1501.7 Minimum Water Quality Requirements

Rationale: Based on the CAC further study recommendation, CBSC proposes to repeal the existing California amendment in the above referenced section and reference appropriate amendments in Section 1504.10.2 (for on-site treated nonpotable graywater) and Section 1503.14 (for recycled water), consistent with HCD and DWR.

1501.10 Signage

Rationale: Based on the CAC further study recommendation, CBSC is proposing this new section as a renumbered heading to reference the appropriate subsections for onsite treated nonpotable graywater (1501.10.1, 1501.10.2, and 1501.10.3) and recycled water (1503.12), consistent with HCD and DWR.

1501.10.1 Commercial, Industrial, Institutional, and Residential Restroom Signs.

Rationale: CBSC is amending the above referenced section as follows:

- Renumber Section 1501.10 as 1501.10.1 as a subtitle of Signage, consistent with DWR.
- Delete references to recycled water in Section 1501.10.1. Section 1501.10 references the parallel code in Section 1503.12 dealing with signage for recycled water, consistent with DWR.
- Amend to incorporate the phrase “Signs shall comply with applicable requirements of the California Building Code” which was inadvertently omitted during the 2015 Triennial Code Adoption Cycle, consistent with HCD.
- Revise an existing California amendment to eliminate redundancy and delete the specific reference to nonpotable graywater, consistent with HCD.

1501.10.2 Equipment Room Signs.

Rationale: CBSC proposes to amend the above referenced section as follows:

- CBSC proposes renumber Section 1501.10.1 as 1501.10.2 as a subtitle of Signage, consistent with DWR.
- CBSC proposes to delete references to recycled water in Section 1501.10.2, as this language is being relocated to Section 1503.12.
- CBSC proposes to add references in Section 1501.10.2 to reference the parallel language in Section 1503.12 dealing with signage for recycled water.

1501.11 Inspection and Testing.

Rationale: Based on the CAC further study recommendation, CBSC is removing its co-adoption of a new exception that directs code users to the reclaimed (recycled) water system requirements in Section 1503.13 (Note: DWR is keeping its similar proposed amendment to reference the code user to the recycled water provisions under their authority in Section 1503).

1501.11.1 Supply System Inspection and Test.

Rationale: No proposed changes, shown for clarity and context only.

1501.11.2 Cross Connection Inspection and Testing.

Rationale: CBSC proposes to amend the above referenced section as follows:

- Repeal the reference to Section 1501.11.2.4, which is not adopted by CBSC, and correcting the range of sections from 1501.11.2.1 through 1501.11.2.3 (consistent with HCD).
- CBSC is removing its proposed note directing the code user to Section 1503 as DWR has captured this in their migration of similar requirements from Chapter 16A into Section 1503.

1501.11.2.1 Visual System Inspection.

Rationale: CBSC is adopting this section without amendment.

1501.11.2.2 Cross-Connection Test.

Rationale: CBSC proposes to amend the above referenced section, consistent with HCD, as follows:

- The proposed amendment modifies text to specify when a cross-connection test is performed and that it may be performed by someone other than just the applicant.
- CBSC proposes to change “and” to “or” to allow the test to be performed in the presence of a delegated authority, or the Authority Having Jurisdiction.
- CBSC proposes changes to Item (5). CBSC proposes to clarify that during the initial cross-connection test, when an alternate water source may not yet be available, a temporary connection to potable water may be used to verify the integrity of the system.

1501.11.2.3 Discovery of Cross-Connection.

Rationale: CBSC proposes to amend the above referenced section as follows (consistent with HCD):

- CBSC proposes to eliminate text “in the presence of Authority Having Jurisdiction” because not all Items (1) through (7) need to be done in the presence of the Authority Having Jurisdiction.
- CBSC added the necessary language in Item (1) to notify the Authority Having Jurisdiction of the cross connection.
- In Items (2), (3) and (5) adding “and its premises” helps clarify that piping may need to be shut down on the premises of the building, e.g. landscapes, if it has an alternate water source.

1501.12 through 1501.14

Rationale: CBSC is adopting these sections without amendment.

1502.3 Connections to Potable and Reclaimed (Recycled) Water Systems.

Rationale: CBSC proposes to amend the above referenced section as follows:

- Based on the CAC further study recommendation, CBSC is modifying its proposed amendments to this section to align with HCD and DWR. CBSC also proposes to add Subtitle “Exception” to clarify there are two exceptions. Exception (2) is added to parallel language in 1504.4 allowing a temporary connection to a potable line for testing purposes prior to connection to an untreated graywater source system (consistent with HCD and DWR).

ITEM 9 – CHAPTER 15, ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS

Agency Statement:

In its initial submittal, CBSC proposed to co-adopt DWR’s amendments to Section 1503, which relocate existing requirements for indoor recycled water use from Chapter 16A. Based on the CAC further study recommendation that CBSC withdraw the indoor elements of its proposal, CBSC is removing its co-adoption of DWR’s amendments (which are applicable to indoor applications and are currently being proposed by DWR in its migration of Chapter 16A into Section 1503). As such, all of CBSC’s proposed amendments to Section 1503 have been removed.

1504.0 On-Site Treated Nonpotable Water Systems.

1504.2 Plumbing Plan Submission.

Rationale: CBSC proposes to amend the above referenced section, adding a California amendment which has been relocated from Section 1501.3. There is no intended change in regulatory effect.

1504.4 Connections to Potable or Reclaimed (Recycled) Water Systems.

Rationale: CBSC proposes to adopt and amend the above referenced section to clarify the intent of Section 1613A.0 (A) in Chapter 16A to protect the water quality of the water supply. The proposed language specifically addresses on-site treated nonpotable gray water systems, and connections to recycled water and the need to protect the treated recycled water supply from the less regulated on-site treated nonpotable gray water system supply. The air gap requirement provides the protections and follows

the language found in the UPC model code. CBSC language is intended to provide consistent and clearer format and requirements across 1502.3, 1503.4, 1504.4, and 1602.4, consistent with DWR.

CBSC also proposes to add Subtitle "Exception" to clarify there are two exceptions. Exception (2) is added to parallel language in 1504.4 allowing a temporary connection to a potable line for testing purposes prior to connection to an on-site treated nonpotable graywater source system (consistent with DWR).

1504.10.2 Minimum Water Quality.

Rationale: CBSC proposes to amend the above referenced section, which was relocated and amended since it is not necessary now that model code addresses it.

Note: Based on the CAC further study recommendation, CBSC is removing its amendments to Chapter 16 (consistent with HCD).

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:

(Government Code Section 11346.2(b)(3))

For Items 1-4, reference documents relied upon are as follows:

1. 2015 Appliance Efficiency Regulations. July 2015.
<<http://www.energy.ca.gov/2015publications/CEC-400-2015-021/CEC-400-2015-021.pdf>>

For Items 5-9, reference documents relied upon are as follows:

1. AB 2282, (Gatto, Chapter 606, Statutes of 2014)
http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB2282

Pursuant to AB 2282 (Gatto, Chapter 606, Statutes of 2014), CBSC, in consultation with HCD, DWR, and other public and private entities, conducted the research and development of these regulations during several precycle stakeholder workshops. The cost of compliance, water savings, and other impacts of the regulations cite information obtained from stakeholders, including data provided by the State Water Resources Control Board, Plumbing Manufacturers International, and Irvine Ranch Water District). These documents relied upon are included with CBSC's rulemaking.

STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:

(Government Code Section 11346.2(b)(1))

California's building standards codes have historically been a mix of performance and prescriptive provisions and reference standards. **Regarding Items 1-4,** the proposed code changes will update existing prescriptive standards for showerhead flow rates specified in the California Plumbing Code, and will be consistent with Title 20 Appliance Efficiency Standards.

Regarding Items 5-9, the installation of recycled water supply systems references existing prescriptive standards as specified in the California Plumbing Code, and are consistent with the recycled water use criteria in Title 22 of the CCR. CBSC is statutorily required to adopt by reference model building codes, which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety, and welfare standards for owners, occupants, and guests. Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

CONSIDERATION OF REASONABLE ALTERNATIVES

(Government Code Section 11346.2(b)(4)(A))

Regarding Items 1-4, the modifications that CBSC is proposing during this intervening cycle are intended to align with the mandate contained Title 20 Appliance Efficiency Standards for nonresidential showerhead flow rates. Because these regulations seek to simply align with the Appliance Efficiency regulations in Title 20 of the California Code of Regulations, which are mandatory statewide, no alternative to this responsive action was considered.

Regarding Items 5-9, the modifications that CBSC is proposing during this intervening cycle are intended to implement the mandate contained within AB 2282, which requires consistency with the recycled water use criteria contained in Title 22 of the California Code of Regulations. As such, no alternatives to this regulation were considered.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.

(Government Code Section 11346.2(b)(4)(B))

Regarding Items 1-4, no alternatives were identified to lessen the adverse impact on small business. These proposed amendments are necessary to align with current laws and regulations found in Title 20 and the CALGreen code.

Regarding Items 5-9, no alternatives were identified to lessen the adverse impact on small business. Elements of this proposal that are new to the code or are made more stringent have been thoroughly vetted through stakeholder outreach and have been justified to implement the statutory mandate contained within AB 2282, which only impacts new construction in jurisdictions that have access to recycled water from a purveyor.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.

(Government Code Section 11346.2(b)(5)(A))

Regarding Items 1-4, CBSC has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states. These regulations may result in an expansion of businesses in the water industry, including (but not limited to) plumbing product manufacturers, plumbing contractors, purveyors, etc.

Regarding Items 5-9, CBSC has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states. These regulations may result in an expansion of businesses in the recycled water industry, including (but not limited to) product manufacturers, plumbing contractors, recycled water purveyors, etc.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

(Government Code Sections 11346.3(b)(1) and 11346.5(a)(10))

The CBSC has assessed whether or not and to what extent this proposal will affect the following:

- ☐ **The creation or elimination of jobs within the State of California.**
The expanded use of dual piping could increase the number of jobs in the recycled water industry, including (but not limited to) plumbing contractors, product manufacturers, water purveyors, enforcement officials, etc.
- ☐ **The creation of new businesses or the elimination of existing businesses within the State of California.**
New businesses in the building, plumbing, manufacturing, and recycled water industries may be created resulting from these regulations.
- ☐ **The expansion of businesses currently doing business with the State of California.**
Various plumbing stakeholders including (but not limited to) plumbing product manufacturers, plumbing contractors, private recycled water producers, etc., could see an expansion in business resulting from these regulations.
- ☐ **The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.**

These regulations will aid in the reduction of potable water use for outdoor applications, as required by AB 2282 (Chapter 606, Statutes of 2014). This will improve the health and welfare of California residents and elements of the State's environment that have been adversely affected by the historic drought.

ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS

(Government Code Section 11346.2(b)(5)(B)(i))

Regarding Items 1-4, these regulations will likely result in the following:

- The estimated cost for compliance is negligible. There are plenty of products in the market that meet or exceed the proposed showerhead flow rate standard and there are multiple manufacturers that currently manufacture showerheads that meet the standard. Showerheads are available at a variety of price points and ranges in cost may be due to a number of factors including style or functional design. There is no direct correlation between the showerhead flow rates and the cost of the product.
- No increased cost of compliance for those regulations that make technical, non-substantive or clarifying changes.
- Benefits include; reduction of potable water use for indoor applications.
- This will improve the State's environment that has been adversely affected by the historic drought.
- Protection of the environment and limited resources.
- General welfare of California residents.

Regarding Items 5-9, these regulations will likely result in the following:

- No increased cost of compliance for those regulations that make technical, nonsubstantive or clarifying changes.
- Increased cost of compliance for regulations that require the installation of recycled water supply systems. However, the benefit of providing the groundwork for water conservation will preserve natural resources and likely outweighs the cost impact.
- Ensure the protection of public health and safety, worker safety and the environment.
- Promotes the general welfare of California residents.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

(Government Code Section 11346.2(b)(6))

This section does not apply because CBSC is not a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal.